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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT,
AFGHANISTAN-USSR BORDER REGION, 3 MARCH 1975

J. R. Woolson, et al

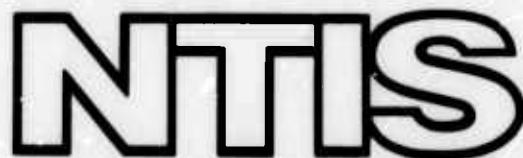
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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Afghanistan-USSR Border Region, 03 March 1975

J.R.Woolson, D.D.Solari, D.J.Reinbold, and R.J.Markle

Alexandria Laboratories

Taladyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

September 1975

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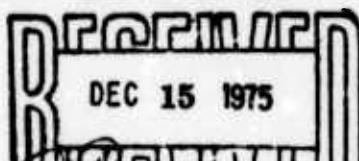
The Defense Advanced Research Projects Agency

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SDCS Event Report No. 14

Afghanistan - USSR Border Region, 03 March 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

| | Origin Time | Lat. | Long. | Depth | m_b | M_s |
|-----------------------|-------------|----------------------------------|--------|--------|-------|-------|
| NORSAR | 09:48:23 | 36.2N | 071.1E | 205 km | 5.5 | 4.2 |
| LASA | 09:48:57 | 43.6N | 070.6E | 190 km | 5.4 | 4.4 |
| PDE | 09:48:24 | 36.4N | 070.9E | 201 km | 5.3 | - |
| Hagfors Array, Sweden | 09:48:20 | 39 N | 068 E | - | 5.7 | 4.4 |
| SDCS & Arrays | | Source parameters not calculated | | | 5.6* | 4.2 |

*Determined using LASA, NORSAR, and WH2YK.

RK-ON, FN-WV and CPSO were not operational for this event.

Short-period signals associated with this event were recorded at WH2YK, LASA and NORSAR. In view of the limited data, no attempt was made to compute a hypocenter. SDCS long-period signals were not identifiable by visual analysis. HN-ME short-period data is negative.

The long-period radial instrument at WH2YK was operating at a very low gain and system noise dominates that trace.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

STATION DESCRIPTION

| SITE CODE | LOCATION | SITE COORDINATES | | ELEVATION METERS | INSTRUMENTATION | |
|-----------|-------------------------|------------------|-----------|------------------|------------------|--------------------|
| | | DEG | MIN SEC'S | | SHORT-PERIOD | LONG-PERIOD |
| ALPA | Alaska | 65 14 | 00.0 N | 626 | None | 31300 |
| | | 147 44 | 36.0 W | | | |
| CPSO | McMinnville, Tennessee | 35 35 | 41.4 N | 574 | 6480 V 7515 H | SL210 V SL220 H |
| | | 085 34 | 13.5 W | | | |
| FN-WV | Franklin, West Virginia | 38 32 | 58.0 N | 910 | KS36000 | KS36000 |
| | | 079 30 | 47.0 W | | | |
| LASA | Billings, Montana | 46 41 | 19.0 N | 744 | HS10 | 7505A V 8700C H |
| | | 106 13 | 20.0 W | | | |
| HN-ME | Houlton, Maine | 46 09 | 43.0 N | 213 | 18300 | SL210 V SL220 H |
| | | 067 59 | 09.0 W | | | |
| NORSAR | Kjeller, Norway | 60 49 | 25.4 N | 379 | HS10 | 7505A V 8700C H |
| | | 010 49 | 56.5 E | | | |
| RK-ON | Red Lake, Ontario | 50 50 | 20.0 N | 366 | 18300 | SL210 V SL220 H |
| | | 095 40 | 20.0 W | | | |
| WH2YK | White Horse, Yukon | 60 41 | 41.0 N | 853 | 18300 | SL210 V SL220 H |
| | | 154 58 | 02.0 W | | | |

Notes:

Details of the program used to obtain beamed vertical, radial and transverse data at LASA, ALPA and NORSAR are in the process of being reviewed. Vertical beams are probably valid, horizontal beams at the LASA and NORSAR are questionable. Horizontal beams at ALPA are probably invalid.

FN-WV, RK-ON, WH2YK and HN-ME horizontal instruments are oriented radial and transverse to the Nevada Test Site. CPSO is oriented N-S and E-W. LASA, NORSAR and ALPA beams have been rotated to radial and transverse with respect to the event location.

DATA SUMMARY

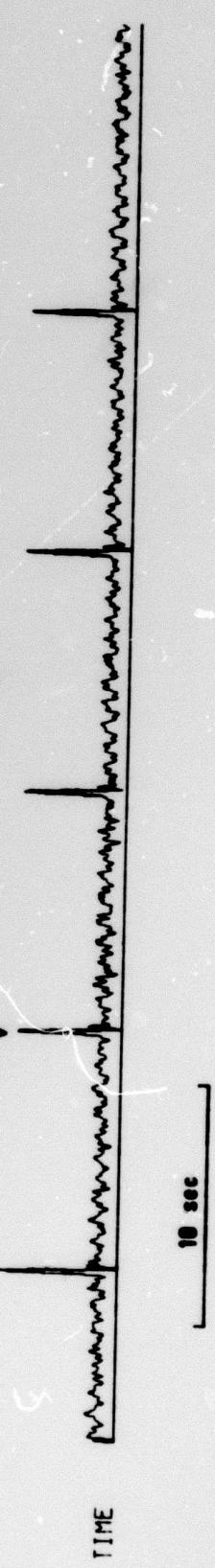
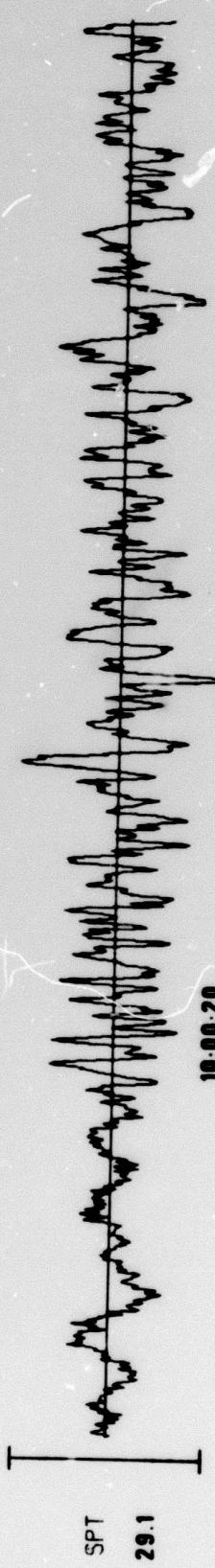
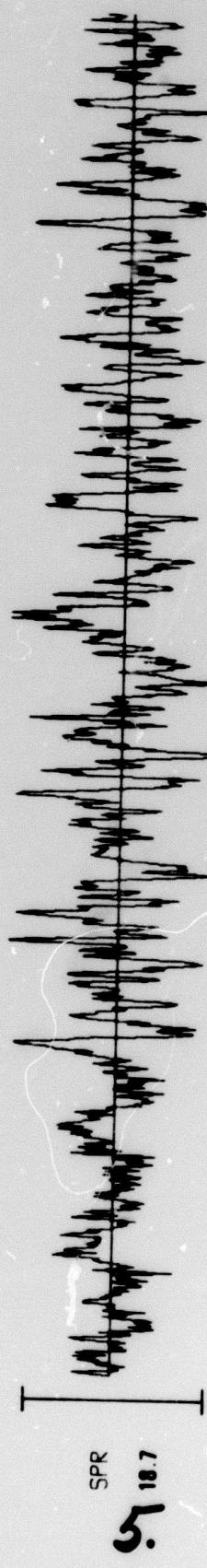
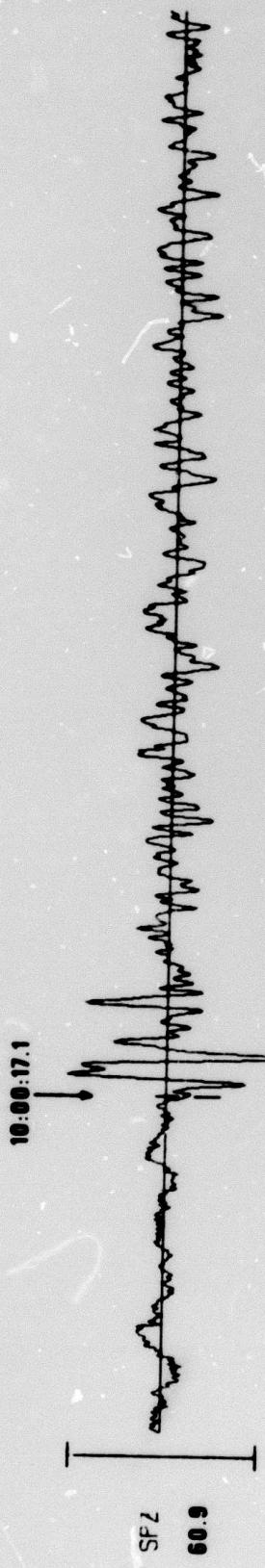
| Sta. | Phase | Arrival Time | Inst. | Per | A/T | m_b^* | M_s | Dist.** |
|-------|-------|-----------------|-------|------|-------|---------|-------|---------|
| NAO | EP | 09:56:16.0 | AB | 0.9 | 181.8 | 5.67 | | 38.0 |
| NAO | LR | 10:14:32 | LAB | 28.0 | 31.7 | | 4.21 | |
| ALPA | LR | 10:27:32 | LAB | 33.0 | 14.7 | | 4.12 | 67.6 |
| WH2YK | EP | 10:00:17.1 | SPZ | 0.8 | 48.4 | 5.50 | | 73.8 |
| LAO | EP | 10:01:35.3 | AB | 0.9 | 52.8 | 5.72 | | 89.9 |
| LAO | LR | 10:46:22 | LAB | 25.0 | 19.9 | | 4.37 | |

Average m_b = 5.63Average M_s = 4.23

* For event source at surface

** Distances are calculated to LASA location.

WH2YK 03 MAR 75



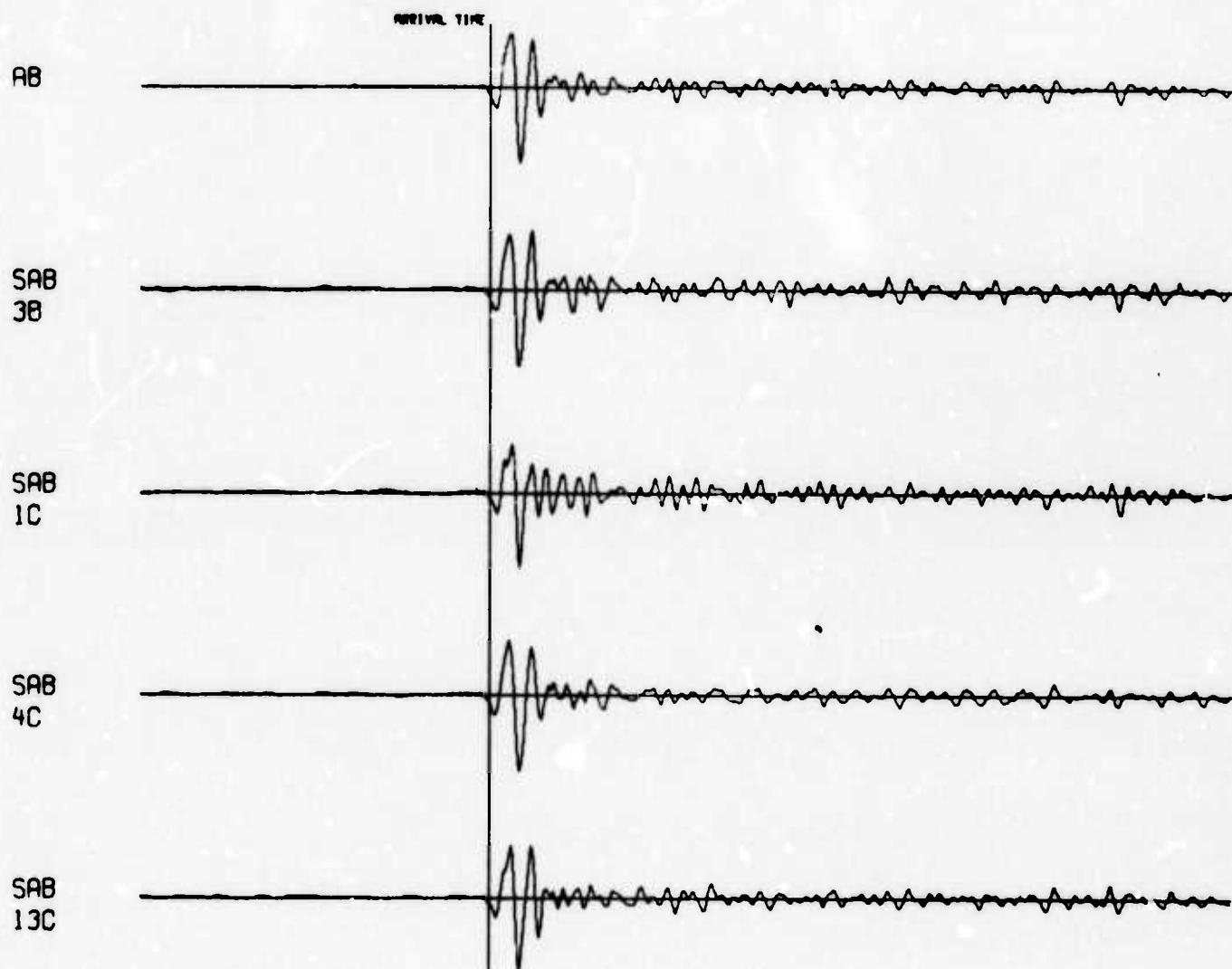
NORSAR EVENT FILE

1975 MAR 3

EPX NO. 80150 ARR. 9.56.16.5 35.3N 72.0E 5.6MB 33KM

DIST = 46.0 AZI = 95.0 AMP = 99.2 PER = 0.9 UMETH 2

— = 5 SECONDS



6.

LASA

1 3 MAR 1975
2 9 48 58 43.6N 70.6E 190G B 5.4 713 CENTRAL KAZAKH SSR
3 10 1 36.2 LAO P 35.5 1.1 23.8 90.2 2.4

EPX 25615

BP-B 0.6-2.0 Hz

ABN 21

10.01.26.2

AB 77

FAB 74

PAB1 67

PAB2 84

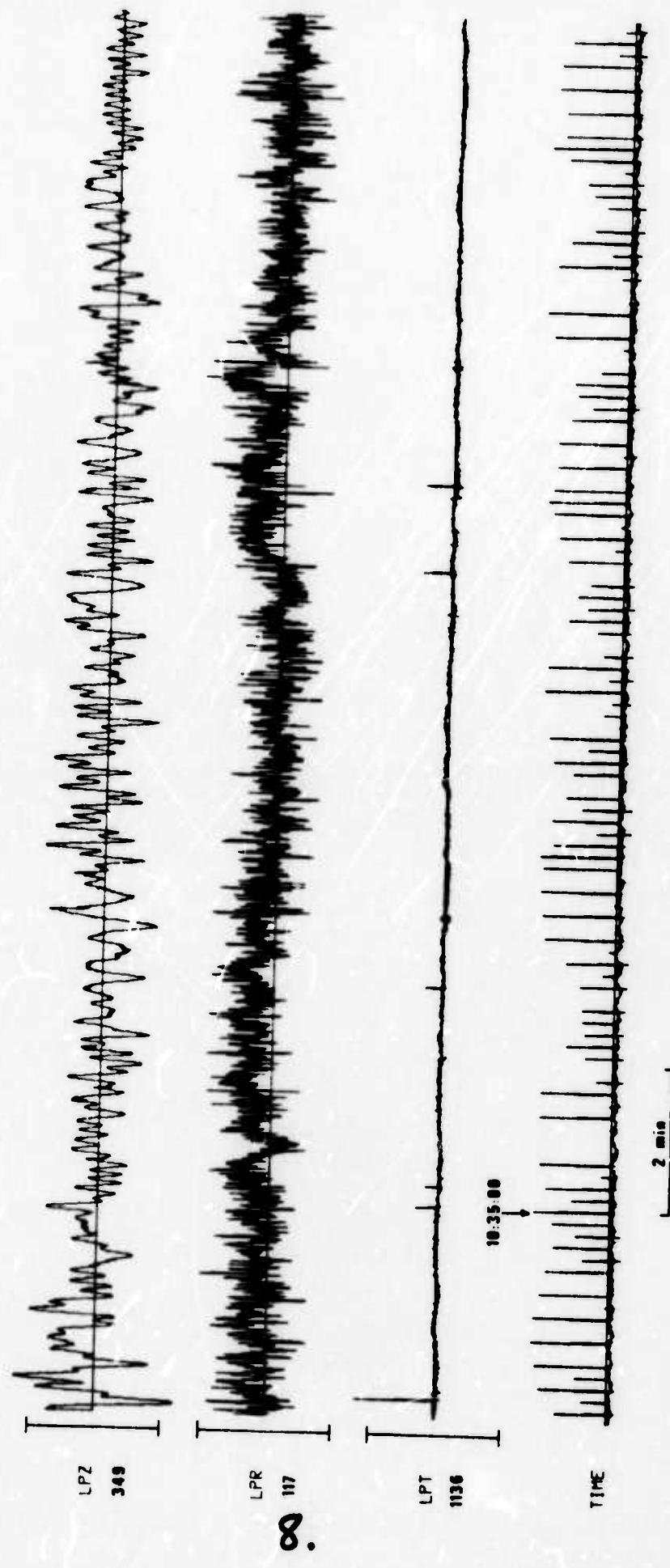
PAB3 85

PAB4 62

10 sec

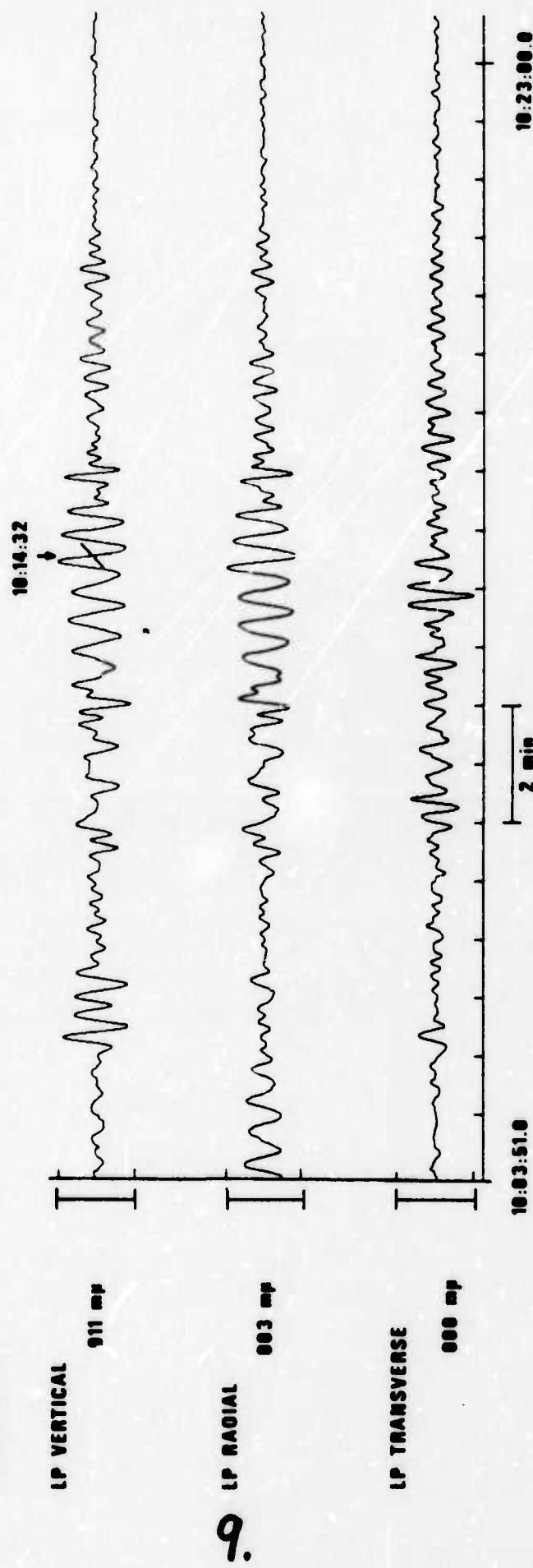
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WH2YK 03 MAR 75



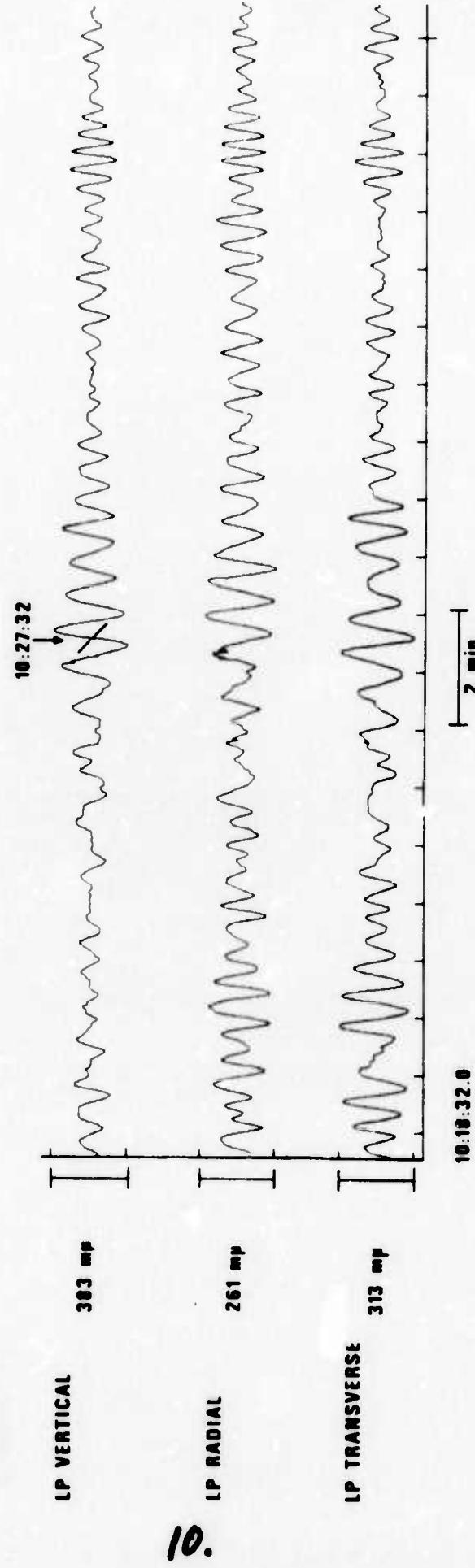
MORSAR LONG-PERIOD BEAMS

03 MARCH 75



ALPA LONG-PERIOD BEAMS

03 MARCH 75



LASA LONG-PERIOD BEAMS
03 MARCH 75

